

REMARKS

In response the above-identified Office Action, Claims 1-18 remain pending in the present application.

Applicant has presented arguments below that Applicant believes should render the claims allowable. In the event, however, that the Examiner is not persuaded by Applicant's arguments, Applicant respectfully requests that the Examiner enter the amendments and remarks to clarify issues upon appeal.

For the reasons set forth more fully below, Applicant respectfully submits that the present claims are allowable. Consequently, reconsideration, allowance and passage to issue of the present application are respectfully requested.

Cited Art Rejection

The Examiner maintained the rejection of claims 1-18 under 35 U.S.C. 102(e) as being anticipated by Chandra et al. ("Chandra"). In making the rejection, the Examiner contends that:

Chandra et al. sets forth a database system (FIG. 3) containing message queues (FIG. 2). Multiple chosen functions are provided, such as ENQUEUE and DEQUEUE in order to control the messages in the message queue (See col. 12, lines 62-68; col. 13, lines 1-67; and col. 16, lines 18-30). The chosen functions are utilized and implemented by SQL statements (col. 12, lines 65-67).

In response to Applicant's previous arguments regarding the rejection, the Examiner states:

Applicant argues the Chandra et al. does not disclose a messaging system that is accessed by a database system, because in Chandra et al., the messaging system (message queues) are within the database. This argument is moot because the claims do not state that the messaging system is physically separate from the database system. In addition, applicant's arguments to this point appear to contradict the independent claims, which explicitly recite a "messaging system in a database system" (claims 1 and 13). The claims clearly are not suggesting a messaging system which is physically separate from the database system. Applicant argues that the functions of ENQUEUE and DEQUEUE are not chosen functions of a messaging system, but rather are functions of the database system

itself. However, in Chandra et al., the messaging is part of the database system, so the functions ENQUEUE and DEQUEUE are actually functions which are chosen by the user and associated with both systems.

Applicant further argues that the ENQUEUE and DEQUEUE commands are individual SQL statements but are not used within other SQL statements. This argument is not correct. See TABLE 3 shown in col. 24, in which ENQUEUE and DEQUEUE commands are used with other commands.

Applicant respectfully disagrees with the rejections and the Examiner's response.

The present invention provides aspects for integrating messaging functionality into database operations. The aspects include providing one or more chosen functions from a messaging system in a database system. The one or more chosen functions from the database system are then utilized within structured query language statements to access the messaging system from the database system. See independent claims 1, 7, and 13.

Applicant respectfully submits that Chandra fails to teach, show, or suggest the recited invention.

Chandra teaches the use of relational tables of a relational database to store queues, the queues being ordered lists of messages. FIG. 3 of Chandra illustrates the containment of a queue as a file 324 in the relational database system 304, while FIG. 2 of Chandra illustrates "logical data structures used in the invention" (col. 3, lines 49-50) for the queue tables stored by the file 324 (col. 6, lines 45-47). In rejecting Applicant's invention, the Examiner points to FIG. 2 of Chandra as teaching the "messaging system"/"messaging program means" of Applicant's recited invention. Applicant respectfully disagrees with the Examiner's interpretation of Chandra's disclosure.

As recited in the first step of independent claims 1 and 13, one or more chosen functions from a messaging system are provided in a database system. Similarly, in independent claim 7, Applicant recites a messaging program means for performing messaging functionality, where one

or more chosen functions of the messaging program means are utilized by a database program means. Applicant fails to see how a logical data structure of a queue table stored in a database file could be interpreted to teach or suggest a system/program means having functionality that can be provided in/utilized by another system.

Further, the functions ENQUEUE and DEQUEUE pointed to by the Examiner as the chosen functions that are provided in order to control the messages in the message queues of Chandra are not taught or suggested as being provided by the so-called 'messaging system'/'messaging program means' of the queue tables. Instead, ENQUEUE and DEQUEUE are taught as being invoked by an internal C function or an SQL statement in an RDBMS application program (see col. 15, lines 39-41 and col. 16, lines 19-20).

Without teaching or suggesting the provision of the chosen function(s), there is nothing the teach or suggest the recited utilization of the chosen function(s) from the database system within SQL statements. Although the Examiner considers this position incorrect and asserts that Chandra's Table 3 shows that "ENQUEUE and DEQUEUE commands are used with other commands," Applicant respectfully submits that the claims recite that the one or more chosen functions are used within structured query language statements, not 'with' other structured query language statements. Thus, in contrast to the recited invention, where one or more chosen functions are included within SQL statements, as shown in the pseudo-SQL examples of Applicant's specification, e.g., pages 9-10, the ENQUEUE and DEQUEUE are separate SQL statements themselves, as shown by the cited Table 3.

Furthermore, Applicant recites that the one or more chosen functions are provided by a messaging system/messaging program means. More particularly, Applicant recites in claim 7 the

installation of the messaging program means for performing messaging functionality on at least one computer processing device, where the one or more chosen functions of the messaging program means are utilized by a database program means also installed on the at least one computer processing device to integrate the messaging functionality performed by the messaging program means within database functionality of the database program means. Applicant reiterates that a queue table stored in a database file fails to teach or suggest the recited messaging system/message program means and its functionality.

Additionally, Applicant respectfully submits that without teaching or suggesting a messaging system, there is nothing in Chandra to teach or suggest the recited accessing of a messaging system from a database system. More particularly, Applicant respectfully submits that Chandra teaches away from the accessing of a messaging system from a database system, since the database system itself contains the messages in Chandra and thus is the system to be accessed in order to gain access to the messages stored therein. In fact, Chandra points out that an advantage of the Chandra database system is “ease of programming, because application programs no longer require a separate database and MOM product” (col. 36, lines 14-16) where a MOM product is taught by Chandra as being message-oriented middleware “such as IBM’s MQ Series” (col. 1, lines 58-59). Such teaching clearly contradicts and teaches away from the recited invention that does include a messaging system/installed messaging program means in addition to a database system/installed database program means.

With regard to the Examiner’s assertion that Applicant recites a ‘messaging system in a database system,’ Applicant respectfully submits that the Examiner appears to have somehow missed the preposition “from” preceding “messaging system” in the claims. This oversight by

the Examiner has led to a gross misinterpretation of the recited invention that serves to support the rejection but fails to wholly represent the actual recited invention.

In view of the foregoing, Applicant respectfully submits that integrating messaging functionality into database operations as recited in independent claims 1, 7, and 13 is not taught, shown, or suggested by the cited art of Chandra. Additionally, Applicant respectfully submits that claims 2-6, 8-12, and 14-18 are respective dependent claims of 1, 7, and 13, and therefore include the features of claims 1, 7, or 13 while providing further features. Accordingly, claims 2-6, 8-12, and 14-18 are also respectfully submitted as allowable for at least those reasons stated hereinabove with respect to claims 1, 7, and 13.

Further, with more particular regard to dependent claims 3, 9, and 15, claims 3, 9, and 15 each recite aspects of the chosen functions as user-defined functions. Included in the recitation of these claims is “a queue of the messaging system.” Applicant respectfully submits that this recitation further distinguishes the recited invention over the cited art of Chandra, which, as stated above, specifically teaches a queue being provided as a table in a relational database system and offers no teaching or suggestion of a messaging system nor of a queue of the messaging system.

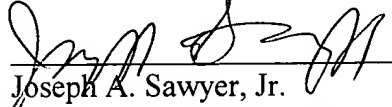
In view of the foregoing, Applicant respectfully requests withdrawal of the rejection under 35 U.S.C. 102(e).

Applicants' attorney believes this application is in condition for allowance. Should any unresolved issues remain, Examiner is invited to call Applicants' attorney at the telephone number indicated below.

Respectfully submitted,

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Date



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